



01-30-06

JB

PATENT

2856

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of ) Customer No. 37003  
Panos PAPANASTASIOU ) Confirmation No. 5010  
Application No: 10/009,505 ) Group Art Unit: 2856  
Filing Date: November 18, 2002 ) Examiner: John P.  
Fitzgerald )  
Title: CAVITY STABILITY PREDICTION ) Docket N°: US 57.0328  
METHOD FOR WELLBORES )

EXPRESS MAIL CERTIFICATE  
UNDER 37 CFR §1.10

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Express Mail Label Number: EV 058372561 US  
Date of Deposit: January 26, 2006

I hereby certify that the attached paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

(Signature)  
(Print Name)

Ruth A. Schreiber  
Ruth A. Schreiber

Schlumberger-Doll Research  
Patent Department  
36 Old Quarry Road  
Ridgefield, Connecticut 06877-4108  
(203) 431-5000



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of ) Customer No. 37003  
Panos PAPANASTASIOU ) Confirmation No. 5010  
Application No: 10/009,505 ) Group Art Unit: 2856  
Filing Date: November 18, 2002 ) Examiner: John P. Fitzgerald  
Title: CAVITY STABILITY PREDICTION ) Docket N°: US 57.0328  
METHOD FOR WELLBORES )  
)

## STATUS INQUIRY

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This patent application has been on file since November 18, 2002. The Issue Fee was filed on February 1, 2005 with a Communication requesting a countersigned copy of Applicant's first PTO-1449 form submitted on February 6, 2002. Copies of these two documents with the return postcard are provided for your convenience in tracking this application. Also enclosed is a copy of Applicant's Deposit Account Statement with the issue fee posted to the account on February 4, 2005.

Applicant made a phone call to the Publication Branch Customer Service on November 14<sup>th</sup>. We were advised that this application was in a "Trouble Shooting" area and we were told to follow-up with another call in a month. On January 12, 2006, Applicant made a second call to the Publication Branch and were told to contact the Examiner. Applicant called the Examiner on January 12, 2006; and Examiner Fitzgerald confirmed that the Issue Fee was paid, but was unsure of the current status of the application. We were advised to continue our communications to locate this application.

Status Inquiry  
Paper Date: January 26, 2006

Attorney Docket No. US 57.0328-WO  
Page 2 of 2

Please advise of the status of this patent application and when Applicant can expect the Issue Notification with the grant number and grant date. A duplicate copy of this letter with a self-addressed envelope is enclosed.

Respectfully submitted,

By:   
Jody Lynn DeStefanis  
Registration N° 44,653

Schlumberger-Doll Research  
36 Old Quarry Road  
Ridgefield, Connecticut 06877-4108  
Phone: (203) 431-5505  
Fax: (203) 431-5640  
Date: January 26, 2006



**United States  
Patent and  
Trademark Office**

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**Deposit Account Statement**

**Requested Statement Month:** February 2005  
**Deposit Account Number:** 190615  
**Name:** SCHLUMBERGER-DOLL RESEARCH  
**Attention:** PATENT DEPARTMENT  
**Address:** 36 OLD QUARRY ROAD  
**City:** RIDGEFIELD  
**State:** CT  
**Zip:** 06877-4108  
**Country:** UNITED STATES OF AMERICA

DATE	SEQ	POSTING REF	ATTORNEY DOCKET NBR	FEE CODE	AMT	BAL
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START BALANCE	SUM OF CHARGES	SUM OF REPLENISH	END BALANCE
\$32,329.60	\$19,354.00	\$0.00	\$12,975.60

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CUSTOMER NO. 37003

57.0328

APPLICANT: PAPANASTASIOU

APPL NO: 10/009,505

FILED: November 18, 2002

TITLE: CAVITY STABILITY PREDICTION METHOD FOR WELLBORES

PAPERS: Submission of Issue Fee  
PTOL-85 Form in duplicate  
Communication

PAPER DATE: February 1, 2005



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

PAPANASTASIOU

Application No: 10/009,505

Filed: November 18, 2002

Title: CAVITY STABILITY PREDICTION METHOD  
FOR WELLBORES



§ CUSTOMER NUMBER: 37003  
§ Group Art Unit: 2856

§ § Examiner: FITZGERALD, JOHN P.

§ § Attorney Docket No.: 57.0328

*Certificate of Mailing*

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to: MS Issue Fee, Hon. Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

*Lorraine Ronnlund* *February 1, 2005*  
\_\_\_\_\_  
Lorraine Ronnlund Date

SUBMISSION OF ISSUE FEE

Mail Stop ISSUE FEE  
Honorable Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the Issue Fee Transmittal mailed 11/02/2004, copies of which are enclosed, the Commissioner is authorized to charge Deposit Account No. 19-0615 the fee of \$1,403.00 for the issuance of the above-identified application, and one (1) copy of the issued patent.

In the event this fee is incorrect, the Commissioner is authorized to further charge/credit the above Deposit Account the requisite amount. Two copies of this sheet are provided.

Respectfully submitted

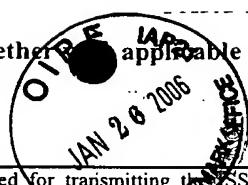
By: *W.B.B.*  
William B. Batzer  
Registration No. 37,088

SCHLUMBERGER-DOLL RESEARCH  
Intellectual Property Law Department  
36 Old Quarry Road  
Ridgefield, Connecticut 06877-4108  
(203) 431-5506

DATE: FEBRUARY 1, 2005

Complete and send this form, together with the applicable fee(s), to: Mail

Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
(703) 746-4000



NSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including fee, Patent Office orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise. **Block 1**, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

7590 11/02/2004

Schlumberger-Doll Research  
Intellectual Property Law Department  
Old Quarry Road  
Ridgefield, CT 06877-4108

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**  
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

Lorraine Ronnlund	(Depositor's name)
<i>Lorraine Ronnlund</i>	(Signature)
February 1, 2005	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,505	11/18/2002	Panos Papanastasiou	US 57.0328	5010

TITLE OF INVENTION: CAVITY STABILITY PREDICTION METHOD FOR WELLBORES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1370 \$1400	\$0 \$0	\$1370 \$1400	02/02/2005
EXAMINER	ART UNIT	CLASS-SUBCLASS			
FITZGERALD, JOHN P	2856	073-152590			

Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 William L. Wang

2 William B. Batzer

3 Dale Gaudier

ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

SCHLUMBERGER TECHNOLOGY CORPORATION

Ridgefield, Connecticut

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

1a. The following fee(s) are enclosed:

- Issue Fee  
 Publication Fee (No small entity discount permitted)  
 Advance Order - # of Copies 1

4b. Payment of Fee(s):

- A check in the amount of the fee(s) is enclosed.  
 Payment by credit card. Form PTO-2038 is attached.  
 The Director is hereby authorized to charge the required fee(s), or credit any overpayment, to Deposit Account Number 19-0615 (enclose an extra copy of this form).

1 Change in Entity Status (from status indicated above)

- a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature WBK

Date February 1, 2005

Typed or printed name William B. Batzer

Registration No. 37,088

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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## PATENT

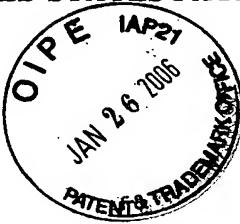
## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Panos PAPANASTASIOU

Serial N°: 10/009,505

Filed: December 5, 2001

For: CAVITY STABILITY PREDICTION METHOD  
FOR WELLBORES

) Group Art Unit: 2856  
 )  
 )  
 )  
 ) Examiner: Fitzgerald, John O.  
 )  
 )  
 ) Attorney Docket N°:  
 ) 57.0328

*Certificate of Mailing*

*I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.*

*Lorraine Ronnlund*

*February 1, 2005*  
*Date*

## COMMUNICATION

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In reviewing the case file, Applicants have observed that a countersigned copy of Applicants' first PTO-1449 form, submitted on February 6, 2002, was not returned with the Notice of Allowance and Issue Fee(s) Due dated November 2, 2004.

Applicants respectfully request that the Examiner confirm that the references cited in this IDS have been made of record by returning a countersigned copy of Applicants' PTO-1449 form, a copy of which is attached for the Examiner's convenience. A copy of the return postcard indicating the USPTO's receipt of this IDS is also attached.

Respectfully submitted,

By: W.B. Batzer

William B. Batzer  
Registration N° 37,088

Schlumberger-Doll Research  
36 Old Quarry Road  
Ridgefield, Connecticut 06877-4108  
(203) 431-5506  
Date: February 1, 2005



57.0328-WO

APPLICANT(S): Panos PAPANASTASIOU

APPL. NO.: 10/009,505

FILING DATE: December 5, 2001

TITLE: CAVITY STABILITY PREDICTION METHOD FOR  
WELLBORES



PAPERS: Information Disclosure Statement (IDS);  
Form PTO-1449; references

USPTO Rec'd PCT/US/PTO 15 FEB 2002

PAPER DATE: FEBRUARY 6, 2002

WB	EK	RS	PS	J
SDR PATENTS				
MAR - 4 2002				
FILE 57.0328-WO				CC:
DOCK'D				

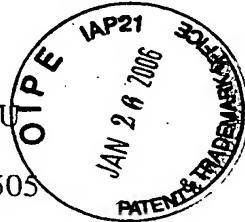
## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Panos PAPANASTASIOU

Application N°: 10/009,505

Filed: December 5, 2001

Title: CAVITY STABILITY PREDICTION METHOD  
FOR WELLBORES

Group Art Unit:

Examiner:

Attorney Docket No.:  
57.0328-WO

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

*Lorraine Ronnlund*  
Lorraine Ronnlund

February 6, 2002  
Date

INFORMATION DISCLOSURE  
STATEMENT

ASSISTANT COMMISSIONER FOR PATENTS  
Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. §1.56, 1.97 and 1.98, the Applicants wish to bring the reference materials listed in the attached Form PTO-1449 to the attention of the U. S. Patent and Trademark Office. Copies of the references are provided for the Examiner's convenience.

No representation is made or intended that a complete and exhaustive prior art search has been made, or that no better references than those set forth below are available. Furthermore, this Statement does not constitute an admission that these references are properly citable against the present application as prior art.

It is respectfully requested that these references be considered by the Examiner and formally made of record in this case.

Respectfully submitted,

William B. Batzer  
Registration N° 37,088

Schlumberger-Doll Research  
36 Old Quarry Road  
Ridgefield, Connecticut 06877-4108  
(203) 431-5506  
Date: February 6, 2002

FORM PTO-1449	U.S. Department of Commerce Patent and Trademark Office	ATTY. DOCKET NO: 57.0328-WO	SERIAL NO.: 10/009,505
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		APPLICANT: Panos PAPANASTASIOU	EXAMINER:
		FILING DATE: December 5, 2001	GROUP:

## U.S. PATENT DOCUMENTS

Exam Init.	Document Number	Date	Name	Class	Sub-class	Filing date if appropriate
	3,907,034	09/23/75	Suman, Jr.	166	250	09/23/74
	4,862,991	09/05/89	Hoyle et al.	181	106	09/13/88
	4,881,208	11/14/89	Liu	367	35	10/27/88
	4,951,267	08/21/90	Chang et al.	367	31	10/15/86
	5,497,658	03/12/96	Fletcher et al.	73	151	03/25/94
	5,619,475	04/08/97	Winkler	367	27	11/09/95
	5,789,669	08/04/98	Flaum	73	152.51	08/13/97
	5,838,633	11/17/98	Sinha	367	31	01/27/97

## FOREIGN PATENT DOCUMENTS

Exam Init.	Document Number	Date	Country	Class	Sub-class	Translation Yes	Translation No
	GB2293652A	14.08.95	U.K.	6	G01V 1/48		

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	N. Morita. "Field and Laboratory Verifications of Sand Production Prediction Models". 7-10 Feb. 1994. SPE 27341, pp. 19-28.
	J. Zhang et al. "Mechanical Strength of Reservoir Materials: Key Information for Sand Prediction". SPE 49134, 27-30 Sept. 1998, pp. 423-430.
	H. Asheim. "Determination of Perforation Schemes to Control Production and Injection Profiles Along Horizontal Wells". SPE, March 1997, pp. 13-17.
	C. Presles et al. "A Sand Failure Test can Cut Both Completion Costs and the Number of Development Wells". SPE 38186, March 1997, pp. 13-17.
	F. Sanfilippo et al. "Sand Production: from Prediction to Management". SPE 38185, (1997), pp. 389-398.
	J. Tronvoll et al. "Sand Production: Mechanical Failure or Hydrodynamic Erosion?" Int. J. Rock Mech. & Min. Sci., Vol 34, No.3/4, Paper No. 291, (1997), pp. 1-11.
	A. Skjaerstein et al. "Hydrodynamic Erosion: A Potential Mechanism of Sand Production in Weak Sandstones". Int. J. Rock Mech. & Min. Sci., Vol. 34, No. 3-4, Paper No. 292 (1997), pp. 1-20.

**EXAMINER** \_\_\_\_\_ **DATE CONSIDERED** \_\_\_\_\_  
**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant